



2007 Joint Service Power Expo

“Power & Energy Independence for Warfighters”

24 – 26 April 2007

San Diego, CA

Table of Contents

Agenda

TUESDAY, 24 APRIL 2007

OIF – Stories From the Field – Lessons Learned

- A Few OIF Power Observations, *LtCol K. Jansen*
- Battlefield Power for the Warfighter: Lessons for the Development Community, *Dr. Ken Zemach*, Ph. D., Lion Cells, Inc.
- OIF 5-7 Commercial Power Generators, *GySgt G.V. Yanez*
- Doing Business with the Government, *Ms Yvonne Bova & Ms Shekela Hutchinson*
- Doing Business with the Marine Corps, *Ms. Shekela Hutchinson*
- Marine Corps Systems Command Purchasing & Evaluation of Power Items, *Mr. Michael Gallagher*
- Power Optimizer for the Warfighter’s Energy Requirements “Battery Calculator”, *Mr. Don Brockel*
- Power Optimizer for the Warfighter Energy Requirements, *Mr. Don Brockel*
- Planning and Decision Support for Enhanced Power and Energy Management through Seminar Gaming and Analysis, *Mr. Gordon Steward*
- Future Trends and Thrust for Army Manportable Power Sources – CERDEC, *Mr. Michael Brundage*
- Advancements in Navy and USMC Power Systems – NSWC Carderock, *Ms. Daphne Fuentevilla*
- Battery Technical Working Group, *Mr. Marc D. Gietter*
- Marine Corps Mobile Electric Power Distribution System Replacement , *MSgt Fred McCue*
- The Case for Smart/Safe Power Management and Distribution for the Military, *Mr. Rick Silva*

WEDNESDAY, 25 APRIL 2007

- Mobile Electric Power for Today and Tomorrow, *Mr. Paul Richard*
- Common Sense Approach to the Selection, Design/Fabrication, & Testing of Safe Operational Power Sources, *Mr. Robert Byrnes, Sr.*
- Fighter/EW/Helo/Patrol Arc Fault Circuit Breaker Development, *Ms Susan Waggoner*
- Large-sized Li-ion battery module for hybrid powered energy systems, *Mr. William A Moll*
- Communications Power Sources and Vehicle Battery Maintenance, *Mr. Mike Bissonnette*
- Power Generation Lesson Learned OIF 5-07, *MSgt Dickson*
- Case Study – Reducing Premature Failure of Parts with Interactive Virtual Training for Generator Operators, *Mr. Erik Kaas*
- Lightweight 2-kW Generator with Integrated Starter Alternator (ISA), *Mr. Gregory Cole*
- Servicing Hawker Vehicle Batteries with Standard Battery Charging and Test Equipment, *Mr. Fred Krestik*
- Testing of COTS/NDI Products, *Mr. John O'Donnell*

Lunch Speaker:

“Warfighting in a Climate Warming World – Implications for U.S. National Security Policies”, Honorable Philip Coyle, Senior Advisor, World Security Institute

- On Board Vehicle Power, *Mr. Michael Gallagher*
- On-Board Vehicle Power Briefing & Way Forward, *Dr. Jim Cross*
- Onboard Vehicle Power: Talking Points on Emerging Requirements, *Mr. Tim Raney*
- Marine Corps On-Board Vehicle Power Systems for Legacy Military Vehicles, *Mr. Michael Gallagher*
- Tactical Generators, *MSgt Fred McCue*
- AutoDISE, *MSgt Fred McCue*
- On Board Vehicle Power, *Mr. Michael Gallagher*
- Electric Drive Approach to Mobile Power Platforms, *Mr. Nader Nasr*
- Video *NATC Proving Grounds*
- Video *MTVR BVP*
- Power-Managed HMMWV Demonstrator, *Mr. Stephen Cortese*

- Workshop Battery Technical Manuals and Milspecs, *Ms Susan Waggoner*
- Solar Power Adapters and Deployable and Renewable Alternative Energy Module, *Major David Morris*
- Tactical Power Systems, *Mr. Tom Lederle*
- Self-Generated Field Power Sources, *Mr. Albert Hartman*

THURSDAY, 26 APRIL 2007

- USMC Family of Environmental Control Equipment, *Major David C. Morris*
- Integrated Trailer-ECU-Generator (ITEG), *Major David C. Morris*
- Solving power supply obsolescence, reliability, and power density issues by advances in power electronics technology, *Mr. Richard Sidley*
- Advances in Chemical Hydride Based PEM Fuel Cells for Portable Power Applications, *Shailesh Shah*
- Advances in Chemical Hydride Based PEM Fuel Cells for Portable Power Applications, *Mr. Andy Wallace*
 - Video *Customer Broadcast*
 - Video *Customer UAV*
 - Video *Customer UGV*
- Data Systems for Enhanced Power and Energy Management, *Mr. John Adams*
- Back up Slides - Data Systems for Enhanced Power and Energy Management, Part 2 *Mr. John Adams*
- Portable Power Sources: One Size Fits None – Protonex Technology Corp, *Mr. Phil Robinson*
- Solid Oxide Fuel Cell Power Systems for Small UAV's, *Mr. Timothy LaBreche*
 - Video *UAV Fuel Cell Flight with Timer*
 - Video *11.5 Hr Ground Test with Timer*
 - Video *BOP Buner UAV*
 - Video *Short Crash Loop*
- Portable, JP-8 fueled battery charger for remote operation and portable solid oxide fuel cell systems, *Ms. Christine Martin*

Monday, April 23, 2007
1:00 p.m. - 5:00 p.m.

Exhibitor Move-in

Tuesday, April 24, 2007
7:30 a.m. - 8:30 a.m.

Continental Breakfast

8:30:00 a.m. - 9:30 a.m.

General Session	
Admin Remarks	
Color Guard	
Welcoming Address	
Keynote Speaker	Major General Stephen T. Johnson

9:30 a.m. - 5:00 p.m.

Exhibit Hall Open

9:30 a.m. - 10:00 a.m.

BREAK in Exhibit Hall

10:00 a.m. - 11:30 a.m.

OIF - Stories from the Field - Lessons Learned	
LtCol K. Jansen	A Few OIF Power Observations
Ken Zemach	Battlefield Power for the Warfighter Lessons for the Development Community
GySgt R.L. Gardner	9th COMM BN ENGINEERS OIF LESSONS LEARNED
GySgt G.V. Yanez	OIF 5-7 Commercial Power Generators

11:30 a.m. - 1:30 p.m.

LUNCH

1:30 p.m. - 3:00 p.m.

Session 1 - Chair: Joanne Martin joanne.martin@usmc.mil	Session 2 - Chair: Don Brockel Donald.Brockel@us.army.mil
Doing Business with the Government - Yvonne Hicks & Shekela Hutchinson	Determining the Right Type and Quantity of a Power Source - US Army CERDEC/LRC, Don Brockel (#4931)
Doing Business with the Marine Corps - Shekela Hutchinson	Future of US Navy Electromotive Power Logistics - NAVAIR, LCDR Davis Spurlock (#4841)
Marine Corps Systems Command Purchasing & Evaluation of Power Items - Michael Gallagher	Planning and Decision Support for Enhanced Power and Energy Management - MTS Technologies, Inc., Stephen Sullivan (#4823)

3:00 p.m. - 3:45 p.m.

BREAK in Exhibit Hall

3:45 p.m. - 5:15 p.m.

Session 3 - Chair: Mike Brundage Michael.Brundage1@us.army.mil	Session 4 - Chair: Bob McKenzie robert.h.mckenzie@usmc.mil
Future Trends and Thrust for Army Manportable Power Sources - CERDEC, Mike Brundage (#4930)	Marine Corps Mobile Electric Power Distribution System Replacement - USMC, MSgt Fred McCue (#4649)
Advancements in Navy and USMC Power Systems - NSWC Carderock, Justin Govar (#4902)	The Case for Smart/Safe Power Management and Distribution for the Military - Custom Manufacturing & Engineering (CME), Rick Silva (#4835 & 4839)
DoD Battery Technical Working Group - US Army roadmaps and databases CERDEC, Marc Gietter (#4929)	Fuel reduction solutions for deployment of mobile electric power systems - Oerlikon Contraves, Philippe Bisailon Eng. MEM (#4805)

6:00 p.m. - 8:00 p.m.

Conference Reception in Exhibit Hall

Wednesday, April 25, 2007

7:00 a.m. - 5:30 p.m.

Exhibit Hall Open

7:00 a.m. - 8:00 a.m.

Continental Breakfast in Exhibit Hall

8:00 a.m. - 9:30 a.m.

Session 5 - Chair: Maj Daniels regina.daniels@us.army.mil
Mobile Electric Power for Today and Tomorrow - DoD Project Manager Mobile Electric Power, Paul Richard (#4829)

Session 6 - Chair: Julie Banner julie.banner@navy.mil
Ultralast Chinese Li/FeS2 Cells - David Hale Associates, Inc., Robert Byrnes Sr. (#4860)
High Voltage Systems: Do's and Don'ts - Naval Surface Warfare Center Crane, Susan Waggoner (#4918)
Large-sized Li-ion battery module for hybrid powered energy systems - GS Yuasa Corp., Koichi Nishiyama (#4690)

Session 7 - Chair: Mike Bissonnette mbissonnette@mkisystems.com
MILITARY TRAINING
Communications power sources & vehicle battery maintenance

9:30 a.m. - 10:15 a.m.

BREAK in Exhibit Hall

10:15 a.m. - 11:45 a.m.

Session 8 - Chair: Maj Daniels regina.daniels@us.army.mil
Mobile Electric Power Lessons Learned in the Global War on Terror - USMC, Robert McKenzie III (#4647)
Case Study - Reducing Premature Failure of Parts with Interactive Virtual Training for Generator Operators - NGRAIN Corp., Erik Kaas (#4840)
Lightweight 2-kW Generator with Electric Start and Voltage Regulation - Mainstream Engineering Corp., Gregory Cole (#4884)

Session 9 - Chair: Don Brockel Donald.Brockel@us.army.mil
Servicing Hawker Vehicle Batteries with Standard Battery Charging and Test Equipment - US Army, TARDEC, Fred Krestik (#4672)
Battery Maintenance and Management - Pulsetech Products Corp., Mark Abelson (#4818)
Hybrid Li-ion/VRLA Battery for Silent Watch - Modular Energy Devices, Stephen Eaves (#4668)

Session 10 - John O'Donnell john.h.odonnell@usmc.mil
Testing of COTS/NDI products (Joint presentation) (#4882)

11:45 a.m. - 1:45 p.m.

LUNCH

Speaker - Hon. Philip E. Coyle III

1:45 p.m. - 3:15 p.m.

Session 11 - Chair: Mike Gallagher michael.a.gallagher@usmc.mil
DOD Efforts in On-Board Vehicle Power (Joint presentation) (#4639)

Session 12 - Chair: Marc Gietter marc.d.gietter@us.army.mil
Research and Development, GEN4 Zinc Air Battery Technology - Electric Fuel Battery Corp., Darrel Morris (#4830)
Flexible Hybrid Power Architecture and Evaluation of Multiple Sources Under Load - US Air Force Research Labs, Lt Joshua Johnson (#4837)
Power Surety for the Long War - US Army, Rapid Equipping Force Power Surety Branch, Daniel Nolan III (#4662)

Session 13 - Chair: CWO5 Good pamela.good@usmc.mil
MILITARY TRAINING
Generators & AUTODISE

3:15 p.m. - 4:00 p.m.

BREAK in Exhibit Hall

4:00 p.m. - 5:30 p.m.

Session 14 - Chair: Mike Gallagher michael.a.gallagher@usmc.mil
Oshkosh Truck's electric drive approach to mobile power platforms - Oshkosh Truck Corp., Nader Nasr (#4822)
30 kW On-Board Vehicle Power for the HMMWV - ePower LLC, William Henrickson (#4700)

Session 15 - Chair: Sue Waggoner susan.waggoner@navy.mil
Workshop - Battery Documents Navy Aircraft and Army C/E - US Navy & US Army, Susan Waggoner & Pat Lyman (#4917)

Session 16 - Chair: Jonathan Hernandez jhernandez@fbiacademy.edu
Solar Power Adapters and Deployable and Renewable Energy Alternative Module - Marine Corps Systems Comand, Maj David Morris, (#4673 & 4686)
Need for Tactical Off-Grid Solar Power System - NEST Energy Systems, Tom Lederle (#4940)

Self-Generated Field Power Sources - High
Tide, Albert Hartman (#4807)

Thursday, April 26, 2007

7:00 a.m. - 12:00 p.m.

Exhibit Hall Open

7:00 a.m. - 8:00 a.m.

Continental Breakfast in Exhibit Hall

8:00 a.m. - 9:30 a.m.

Session 17 - Chair: Maj Daniels regina.daniels@us.army.mil
The Family of Environmental Control Equipment - Marine Corps Systems Command, MSgt Teresa Terry (#4689)
Integrated Trailer, Environmental Control Unit, and Generator (ITEG) - Marine Corps Systems Command, Maj David Morris (#4674)
Solving power supply obsolescence, reliability, and power density issues by advances in power electronics technology. - Custom Manufacturing & Engineering, Richard Sidley (#4833)

Session 18 - Chair: Jonathan Hernandez jhernandez@fbiaacademy.edu
Moving Forward with Fuel Cells: Army CERDEC Development & Demonstration Progress - US Army, CERDEC, Elizabeth Bostic (#4684)
XX25 Reformed Methanol Fuel Cell for Portable Power Applications - UltraCell Corp., Ian Kaye (#4755)
Advances in Chemical Hydride Based PEM Fuel Cells for Portable Power Applications - Millennium Cell Inc., Shailesh Shah (#4877)

9:30 a.m. - 10:15 a.m.

BREAK in Exhibit Hall

10:15 a.m. - 12:00 p.m.

Session 19 - Chair: Sue Waggoner susan.waggoner@navy.mil
Data Systems for Enhanced Power and Energy Management - MTS Technologies, Inc., Zachary P. Hubbard (#4826)
Powering the Mobile Warfighter: One Size Fits None - Protonex Technology Corp., Phil Robinson (#4832)
The Next Level of Intelligent Power Management & Distribution - Energy Technologies, Inc., Tim Lowe (#4836)

Session 20 - Chair: Jonathan Hernandez jhernandez@fbiaacademy.edu
Durability and Performance issues of PEM Fuel Cell Systems for Portable Applications - Hampton University, Dr. Amir Hoshang Chegini (#4685)
Solid Oxide Fuel Cell Power Systems for Small UAVs - Adaptive Materials, Inc., Brad Clawson (#4838)
Military 3 kW Jet-Fueled Tactical Fuel Cell Generator - IdaTech, LLC, Eric Simpkins (#4706)
Portable, JP-8 fueled battery charger for remote operation and portable solid oxide fuel cell systems - Mesoscopic Devices, LLC, Christine Martin & Dr Jerry Martin (#4709 & 4710)

12:00 p.m.

Conference Adjourns

12:00 p.m. - 4:00 p.m.

Exhibitor Move-out